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(19) **United States**(12) **Patent Application Publication**  
**Krishnan**(10) **Pub. No.: US 2002/0110237 A1**(43) **Pub. Date: Aug. 15, 2002**(54) **CLUSTER KEY ARRANGEMENT**(52) **U.S. Cl. .... 379/419; 379/433.07**(76) **Inventor: Ravi C. Krishnan, Bethesda, MD (US)****Correspondence Address:****Richard C. Litman****P.O. Box 15035****Crystal City Station****Arlington, VA 22215-0035 (US)**(21) **Appl. No.: 10/126,534**(22) **Filed: Apr. 22, 2002****Related U.S. Application Data**(63) **Continuation of application No. 09/296,809, filed on Apr. 23, 1999, now Pat. No. 6,377,685.****Publication Classification**(51) **Int. Cl.<sup>7</sup> ..... H04M 1/00; H04M 9/00**(57) **ABSTRACT**

A cluster key arrangement may be mechanically configured or electronically configured. The cluster key arrangement may include twelve cluster keys configured in an arrangement of three columns by four rows, such as conventionally found on standard telephones. The cluster key arrangement may also be configured for use on cellular/mobile telephones, television remote controls, other handheld data entry devices, automotive controls, desktop/wall-mounted/cordless telephones, combination telephone recorders, Personal Digital Assistants, and other electronic devices. The mechanically or electronically configured cluster, keys provide a user with the ability to select one of a plurality of key elements representing numbers, letters, symbols, functions, etc., in a mutually exclusive manner.

